

FACILITY NAME: Rhapsody Land PurgeVPDES PERMIT NUMBER: VA 0068314

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

Piedmont Regional Office
AUG 18 2010
RECEIVED

1. Facility Information.

- a. Facility name: Rhapsody Land Purge
- b. Contact person: Stephen Jones
Title: President
Phone: () 757-498-4448
- c. Mailing address:
Street or P.O. Box: 126 South Lankhewen RD
City or Town: Virginia Beach State: VA Zip: 23452
- d. Facility location:
Street or Route #: 17324 WASHINGTON HWY.
County: HANOVER
City or Town: DOSWELL State: VA Zip: 23047
- e. Is this facility a Class I sludge management facility? Yes No
- f. Facility design flow rate: 0.005 MGD mgd
- g. Total population served: 50
- h. Indicate the type of facility:
☐ Publicly owned treatment works (POTW)
☒ Privately owned treatment works
☐ Federally owned treatment works
☐ Blending or treatment operation
☐ Surface disposal site
☐ Other (describe): _____

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: Michael L. Cook
- b. Mailing address:
Street or P.O. Box: Box 13
City or Town: Doswell State: VA Zip: 23047
- c. Contact person: M. Cook
Title: Consultant
Phone: (804) 387 6362 or 804 994 2088
- d. Is the applicant the owner or operator (or both) of this facility?
☐ owner ☒ operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
☐ facility ☒ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable): VA 0068314
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
Permit Number: PWSID Type of Permit: 4085920

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? Yes ☒ No If yes, describe:

FACILITY NAME: Rhapsody Ind. Purgo

VPDES PERMIT NUMBER: VA0068314

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
- Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed. ATTACHMENT A
 - Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries. ATTACHMENT A, B, C

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. ATTACHMENT B

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? ☒ Yes ☐ No
If yes, provide the following for each contractor (attach additional pages if necessary).

Name: Dillon Septic Service

Mailing address:

Street or P.O. Box: 305 S. Washington Hwy.

City or Town: ASHLAND State: VA Zip: 23008

Phone: (804) 798-4471

Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s). ATTACHED D

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

NA

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

NA

- ☐ Section A (General Information)
☐ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
☐ Section C (Land Application of Bulk Sewage Sludge)
☐ Section D (Surface Disposal)

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

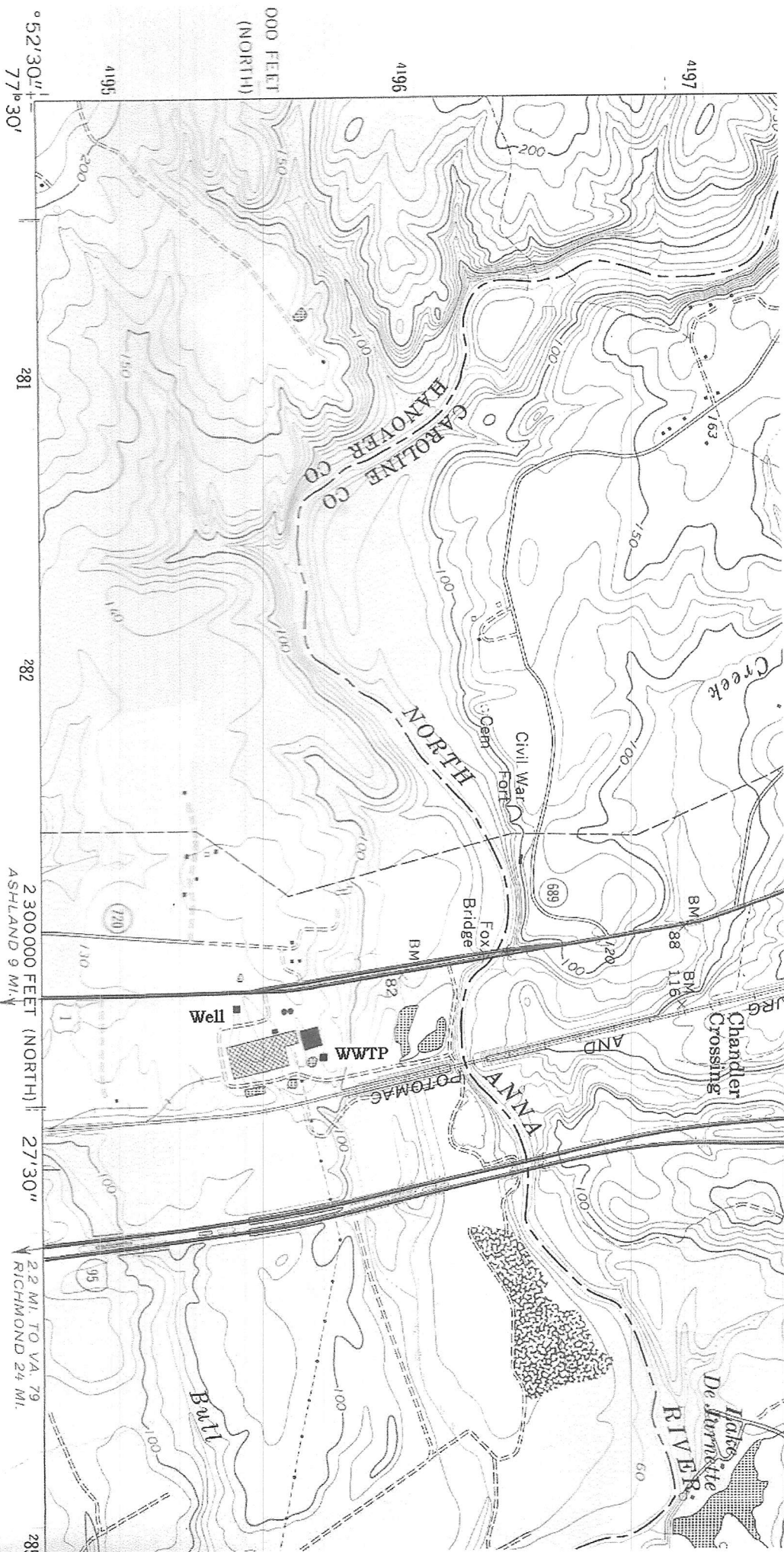
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title _____

Signature X _____ Date Signed _____

Telephone number _____

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.



000 FEET
(NORTH)

° 52' 30" N
77° 30' W

Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial
photographs taken 1966. Field checked 1969

Polyconic projection. 10,000-foot grid ticks based on
Virginia coordinate system, north and south zones
1000-meter Universal Transverse Mercator grid ticks,
zone 18, shown in blue

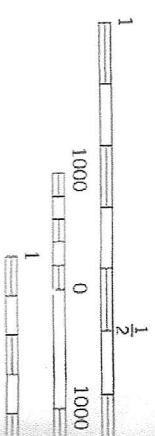
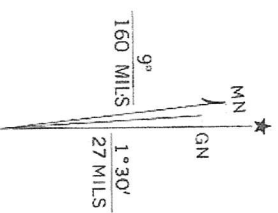
1927 North American Datum

To place on the predicted North American Datum 1983

move the projection lines 10 meters south and
26 meters west as shown by dashed corner ticks

Five red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked

UTM GRID AND 1985 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

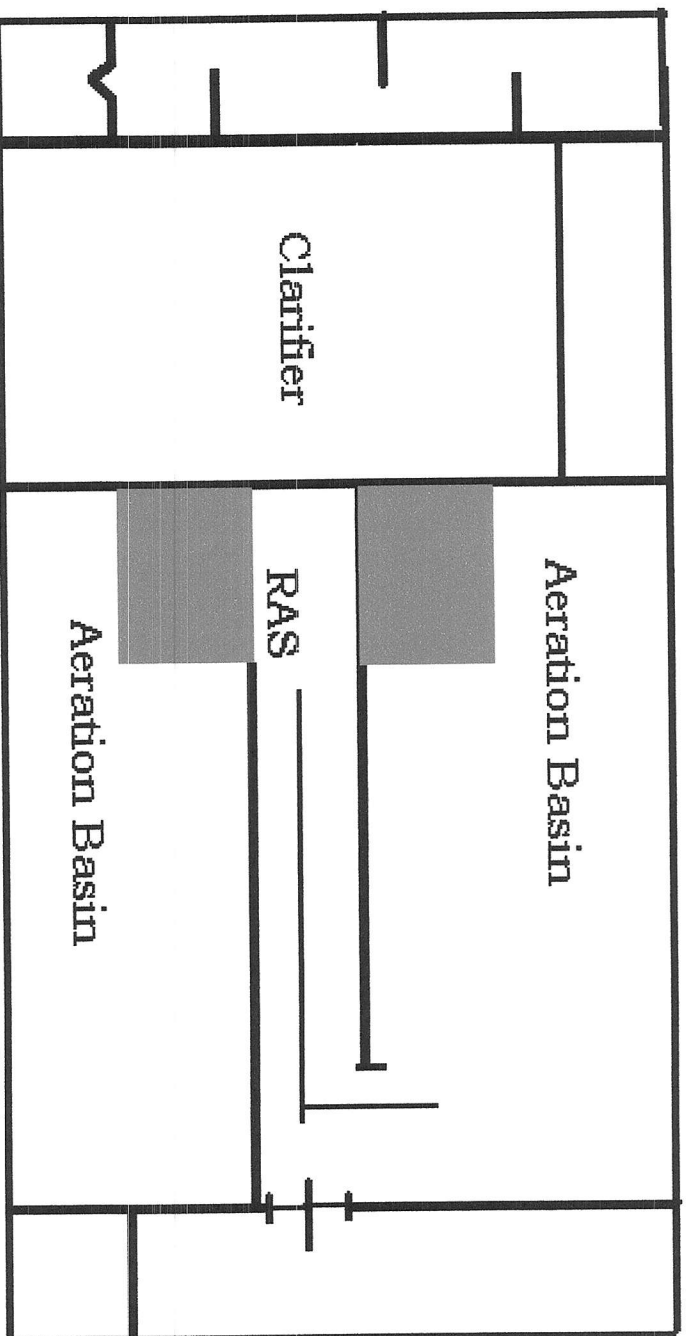


THIS MAP CO
FOR SALE BY U.S.

ATTACHMENT A AND VIRGINIA DIVISION OF
A FOLDER DESCRIBING TO

Rhapsody
Industrial/ Purgo

WWTP
Doswell, VA
VA0068314



Chlorine
Contact
Tank

Clarifier

Aeration Basin

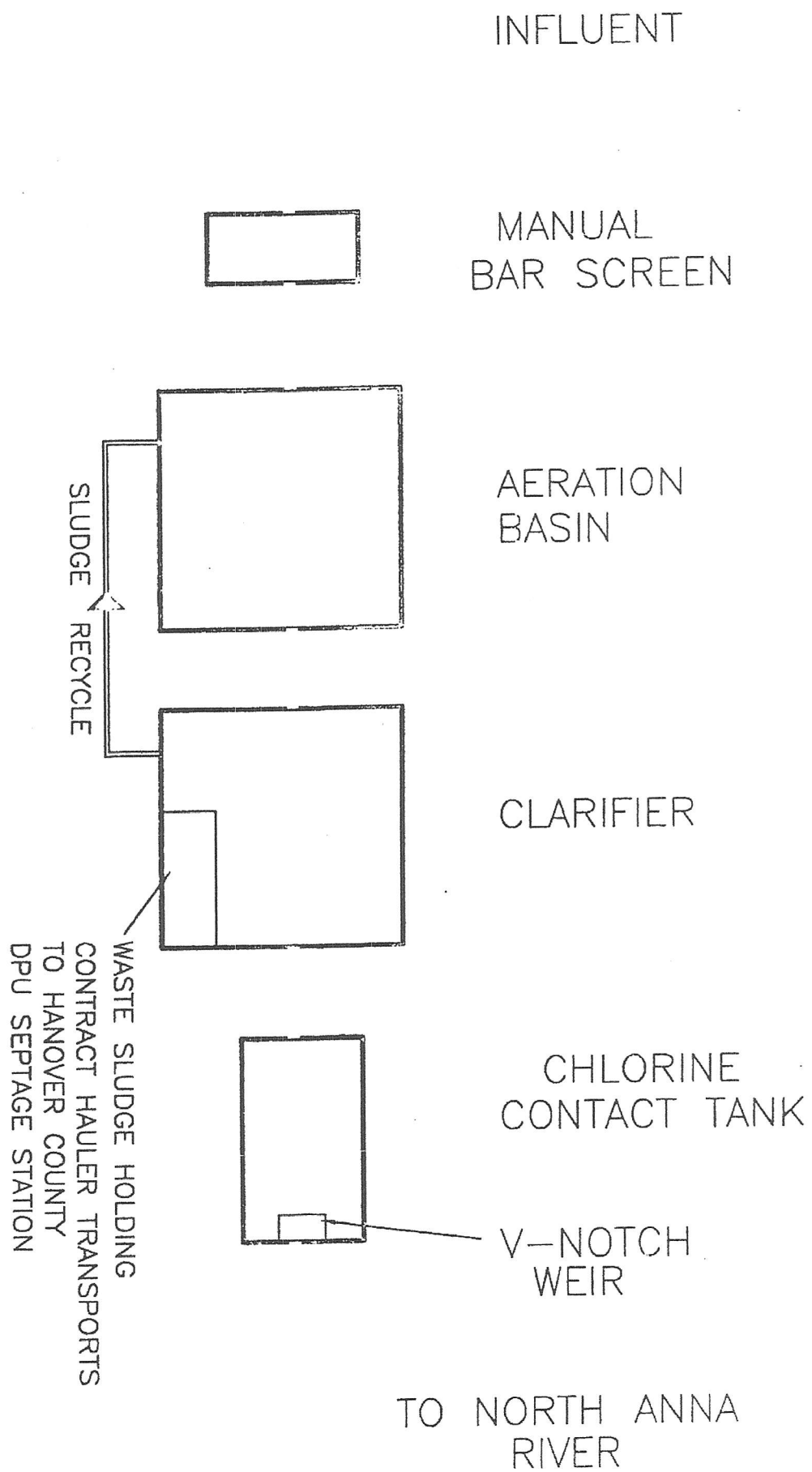
RAS

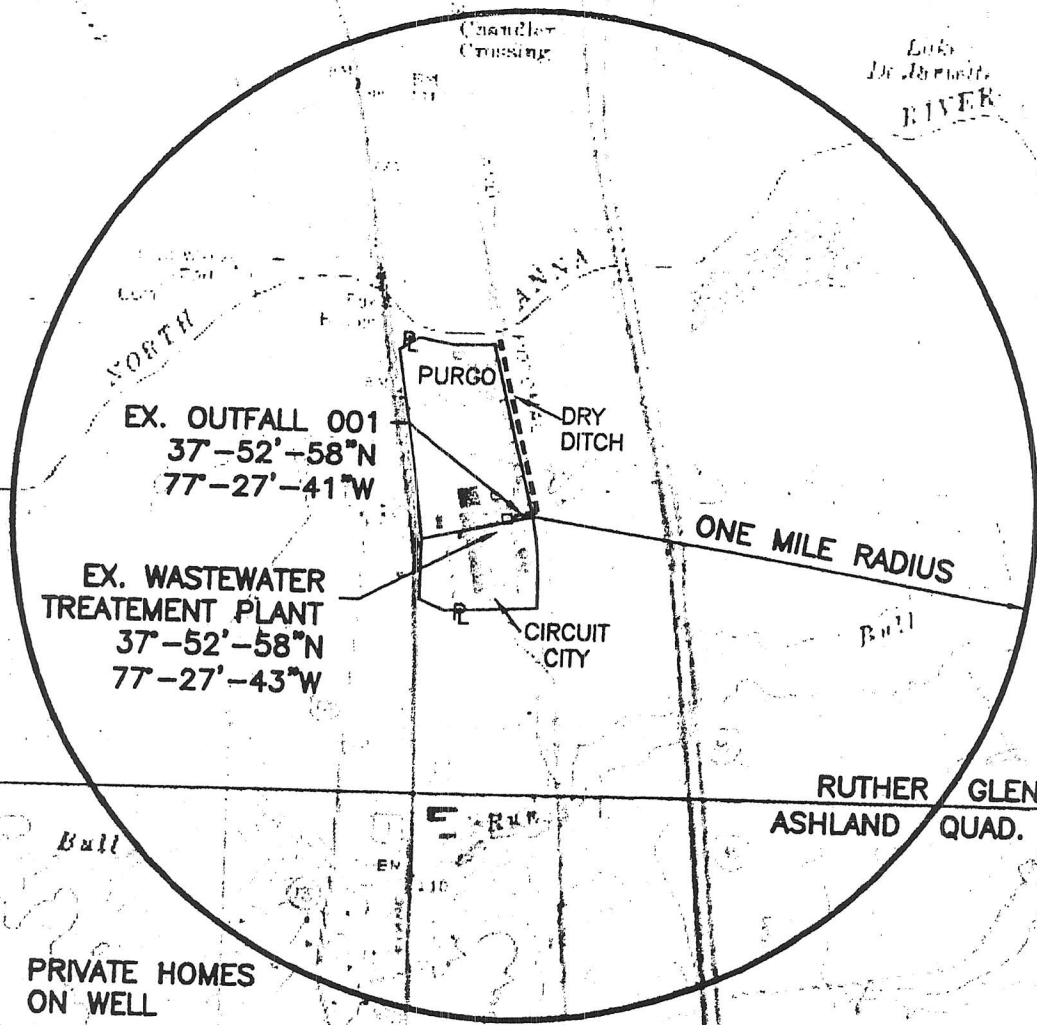
Aeration Basin

Digester
Holding
Tank

Bar Screen

WASTEWATER TREATMENT PLANT
EXTENDED AERATION PROCESS





SCALE: 1"=2000'



FACILITY NAME: Rhapsody Purso

VPDES PERMIT NUMBER: Y40068314

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
Total dry metric tons per 365-day period generated at your facility: .12 dry metric tons Attachment D
2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
 - a. Facility name: _____
 - b. Contact Person: _____
Title: _____
Phone () _____
 - c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
 - d. Facility Address: _____
(not P.O. Box) _____
 - e. Total dry metric tons per 365-day period received from this facility: .12 dry metric tons
 - f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. Treatment Provided at Your Facility.
 - a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
Class A Class B ☒ Neither or unknown
 - b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: _____

 - c. Which vector attraction reduction option is met for the sewage sludge at your facility?
Option 1 (Minimum 38 percent reduction in volatile solids)
Option 2 (Anaerobic process, with bench-scale demonstration)
Option 3 (Aerobic process, with bench-scale demonstration)
Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
Option 5 (Aerobic processes plus raised temperature)
Option 6 (Raise pH to 12 and retain at 11.5)
Option 7 (75 percent solids with no unstabilized solids)
Option 8 (90 percent solids with unstabilized solids)
☒ None or unknown
 - d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: _____

 - e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: _____

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
 - a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
_____ dry metric tons
 - b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

Tamira Cohen, Environmental Engineer Sr.
Department of Environmental Quality
Piedmont Regional Office
4949A Cox Rd
Glen Allen, VA 23060

RE: Item 1. Section B.

Current sewerage sludge management processes consist of transporting sludge by a licensed contractor from the package plant in liquid form to a approved receiving station.

Vol. MG * Conc. Mg/l * 8.34 = lbs

A estimate of the Waste Activated Sludge Volume is 150 gallons per week 7800 gallons or 7800 gallons of waste activated sludge per year. Using a estimated concentration of 4000 mg/l will result in 260.2 pounds per year or .12 metric tons.

.0078 MG * 4000mg/l * 8.34 #/gal = 260.2 #.

260.2#/ 2204 ton = .12 metric tons.

Sincerely,


M. L. Cook

ATTACHMENT D

FACILITY NAME: Rhapsody Pungo
Yes ☐ No ☐

VPDES PERMIT NUMBER: VA0068314

5. Sale or Give-Away in a Bag or Other Container for Application to the Land. NA

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: HANOVER CO. DP4 Rich Food Rd SRS.
- b. Facility contact: HANOVER COUNTY D.P.4
Title: County Engineer
Phone: (804) 365 6024
- c. Mailing address:
Street or P.O. Box: P.O. Box 478
City or Town: HANOVER State: VA Zip: 23069
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____ dry metric tons
- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:
Permit Number: NONE Type of Permit: PUMP STATION.
- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? Yes ☐ No ☒
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
☐ Class A ☐ Class B ☒ Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: _____
- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? Yes ☐ No ☒
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
☐ Option 1 (Minimum 38 percent reduction in volatile solids)
☐ Option 2 (Anaerobic process, with bench-scale demonstration)
☐ Option 3 (Aerobic process, with bench-scale demonstration)
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
☐ Option 5 (Aerobic processes plus raised temperature)
☐ Option 6 (Raise pH to 12 and retain at 11.5)
☐ Option 7 (75 percent solids with no unstabilized solids)
☐ Option 8 (90 percent solids with unstabilized solids)
☐ None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: _____
- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
Yes ☐ No ☒
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above: _____
- i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility

FACILITY NAME: Brapsey Pargo

VPDES PERMIT NUMBER: VA0068314

to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

- j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ☐ Yes ☒ No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.
- k Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ☒ Yes ☐ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. ATTACHED

7. Land Application of Bulk Sewage Sludge. NA

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: _____ dry metric tons
- b. Do you identify all land application sites in Section C of this application? ☐ Yes ☐ No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).
- c. Are any land application sites located in States other than Virginia? ☐ Yes ☐ No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.
- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

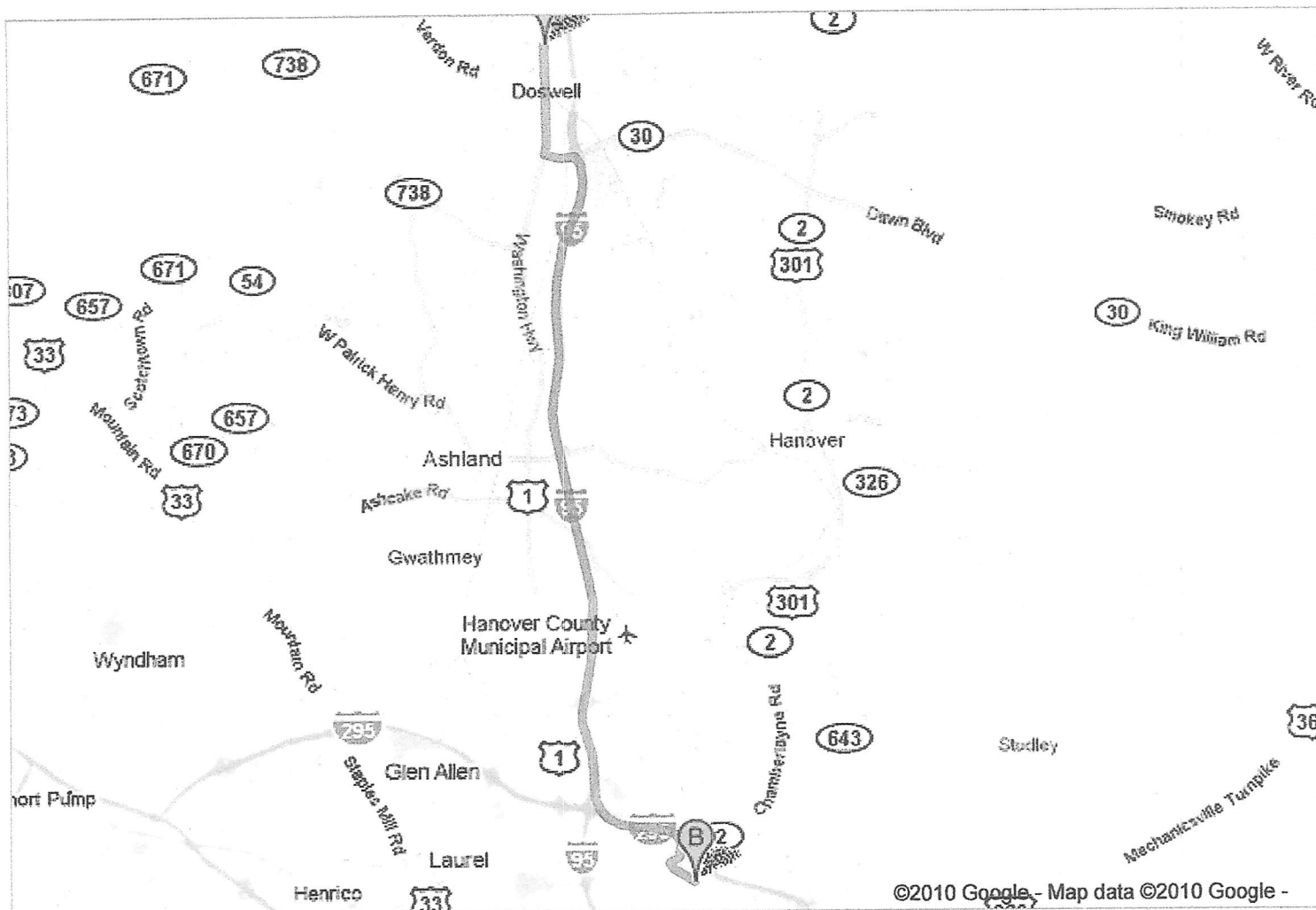
8. Surface Disposal. NA

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons
- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
☐ Yes ☐ No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.
- c. Site name or number: _____
- d. Contact person: _____
Title: _____
Phone: () _____
Contact is: ☐ Site Owner ☐ Site operator
- e. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons
- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:
Permit Number: _____ Type of Permit: _____

9. Incineration. NA

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)



Driving directions to Richfood Rd, Mechanicsville, VA 23116

A 17234 Washington Hwy
Doswell, VA 23047

1. Head **south** on **US-1 S/Washington Hwy**
2. Turn **left** at **VA-30 S/Kings Dominion Blvd**
3. Turn **right** to merge onto **I-95 S** toward **Richmond**
4. Take exit **84A** on the left to merge onto **I-295 S** toward **Rocky Mt NC/Richmond International**
5. Take exit **41B** to merge onto **US-301 S/VA-2 S/Chamberlayne Rd** toward **Richmond**
6. Turn **left** at **Richfood Rd/State Route 1250**

B Richfood Rd
Mechanicsville, VA 23116

2.2 mi
0.6 mi
12.4 mi
2.4 mi
0.7 mi
0.6 mi

ATTACHMENT E

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- NA
- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons
- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
____ Yes ____ No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.
- c. Incinerator name or number: _____
- d. Contact person: _____
Title: _____
Phone: () _____
Contact is: ____ Incinerator Owner ____ Incinerator Operator
- e. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons
- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:
Permit Number: _____ Type of Permit: _____

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

- NA
- a. Landfill name: _____
- b. Contact person: _____
Title: _____
Phone: () _____
Contact is: ____ Landfill Owner ____ Landfill Operator
- c. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Landfill location.
Street or Route #: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill: _____ dry metric tons
- f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: _____ Type of Permit: _____

- g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
____ Yes ____ No
- h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? ____ Yes ____ No
- i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? ____ Yes ____ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported. _____

FACILITY NAME: Riverside Ind. Purge

VPDES PERMIT NUMBER: 140063314

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

NA

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or

The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or

You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.

- a. Site name or number: _____
- b. Site location (Complete i and ii)
 - i. Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
 - ii. Latitude: _____ Longitude: _____
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.

- a. Are you the owner of this land application site? ☐ Yes ☐ No
- b. If no, provide the following information about the owner:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: () _____

3. Applier Information:

- a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? ☐ Yes ☐ No
- b. If no, provide the following information for the person who applies the sewage sludge:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: () _____
- c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:
Permit Number: _____ Type of Permit: _____

4. Site Type. Identify the type of land application site from among the following:

☐ Agricultural land ☐ Reclamation site ☐ Forest
☐ Public contact site ☐ Other. Describe _____

5. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
☐ Yes ☐ No If yes, answer a and b.

- a. Indicate which vector attraction reduction option is met:
☐ Option 9 (Injection below land surface)
☐ Option 10 (Incorporation into soil within 6 hours)
- b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

FACILITY NAME: Phosphate P-50VPDES PERMIT NUMBER: V4886 8314

6. Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

- a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? Yes No

If no, sewage sludge subject to the CPLRs may not be applied to this site.

If yes, provide the following information:

Permitting authority: _____

Contact person: _____

Phone: () _____

- b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? Yes No If no, skip the rest of Question 6. If yes, answer questions c - e.

- c. Site size, in hectares: _____ (one hectare = 2.471 acres)

- d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name: _____

Facility contact: _____

Title: _____

Phone: () _____

Mailing address.

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	<u>Cumulative loading</u>	<u>Allotment remaining</u>
Arsenic	_____	_____
Cadmium	_____	_____
Copper	_____	_____
Lead	_____	_____
Mercury	_____	_____
Nickel	_____	_____
Selenium	_____	_____
Zinc	_____	_____

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

PCBs (mg/kg)	_____
pH (S. U.)	_____
Percent Solids (%)	_____
Ammonium Nitrogen (mg/kg)	_____
Nitrate Nitrogen (mg/kg)	_____
Total Kjeldahl Nitrogen (mg/kg)	_____
Total Phosphorus (mg/kg)	_____
Total Potassium (mg/kg)	_____
Alkalinity as CaCO ₃ * (mg/kg)	_____

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

FACILITY NAME: Rhapsody Pursa

VPDES PERMIT NUMBER: _____

8. Storage Requirements. NA

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

- a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
 - 1) Water wells, abandoned or operating
 - 2) Surface waters
 - 3) Springs
 - 4) Public water supply(s)
 - 5) Sinkholes
 - 6) Underground and/or surface mines
 - 7) Mine pool (or other) surface water discharge points
 - 8) Mining spoil piles and mine dumps
 - 9) Quarry(s)
 - 10) Sand and gravel pits
 - 11) Gas and oil wells
 - 12) Diversion ditch(s)
 - 13) Agricultural drainage ditch(s)
 - 14) Occupied dwellings, including industrial and commercial establishments
 - 15) Landfills or dumps
 - 16) Other unlined impoundments
 - 17) Septic tanks and drainfields
 - 18) Injection wells
 - 19) Rock outcrops
- b. A topographic map of sufficient detail to clearly show the following information:
 - 1) Maximum and minimum percent slopes
 - 2) Depressions on the site that may collect water
 - 3) Drainageways that may attribute to rainfall run-on to or runoff from this site
 - 4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding
- c. Data and specifications for the storage facility lining material.
- d. Plan and cross-sectional views of the storage facility.
- e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.

10. Landowner Agreement Forms. Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.

11. Ground Water Monitoring.
Are any ground water monitoring data available for this land application site? ☐ Yes ☐ No
If yes, submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.
(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

FACILITY NAME: Rhapsody Pools

VPDES PERMIT NUMBER: VA0063814

- a. Provide a general location map for each county which clearly indicates the location of all the land application sites.

WA

- b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.

- c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Ecological Services
6669 Short Lane
Gloucester, VA 23061
TEL: (804) 693-6694

Provide a copy of the notification letter with this application form.

- d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)

Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

- 1) Soil symbol
- 2) Soil series, textural phase and slope range
- 3) Depth to seasonal high water table
- 4) Depth to bedrock
- 5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

- e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

NA

- 1). Soil symbol
- 2). Soil series, textural phase and slope range
- 3). Depth to seasonal high water table
- 4). Depth to bedrock
- 5). Estimated soil productivity group (for the proposed crop rotation)

FACILITY NAME: Buapsoody Pors

VPDES PERMIT NUMBER: V10063814

- f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)	_____
Soil pH (std. units)	_____
Cation Exchange Capacity (meq/100g)	_____
Total Nitrogen (ppm)	_____
Organic Nitrogen (ppm)	_____
Ammonia Nitrogen (ppm)	_____
Nitrate Nitrogen (ppm)	_____
Available Phosphorus (ppm)	_____
Exchangeable Potassium (mg/100g)	_____
Exchangeable Sodium (mg/100g)	_____
Exchangeable Calcium (mg/100g)	_____
Exchangeable Magnesium (mg/100g)	_____
Arsenic (ppm)	_____
Cadmium (ppm)	_____
Copper (ppm)	_____
Lead (ppm)	_____
Mercury (ppm)	_____
Molybdenum (ppm)	_____
Nickel (ppm)	_____
Selenium (ppm)	_____
Zinc (ppm)	_____
Manganese (ppm)	_____
Particle Size Analysis or USDA Textural Estimate (%)	_____

NA

- g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.
- h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

NA

FACILITY NAME: Rhapsody Farms
SEWAGE SLUDGE APPLICATION AGREEMENT

VPDES PERMIT NUMBER: VA0069514

This sewage sludge application agreement is made on this date _____ between
WA, referred to here as "landowner", and _____, referred to
here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as
_____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply
with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner
authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil
conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect
public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen
reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall
not be harvested for 14 months after application of sewage sludge;
2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application
of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to
incorporation into the soil;
3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application
of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to
incorporation into the soil;
4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;
5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;
6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the
sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn,
unless otherwise specified by the State Water Control Board;
7. Public access to land with a high potential for public exposure shall be restricted for one year after application of
sewage sludge;
8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of
sewage sludge.
9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three
years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45
pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and
specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon
written notice to the address specified below.

Landowner: WA

Signature

Mailing Address

Permittee:

Signature

Mailing Address

FACILITY NAME: Bhagrodh PuraVPDES PERMIT NUMBER: VA0068314

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.

- a. Unit name or number: _____
- b. Unit location
- i. Street or Route#: NA
- County: _____
- City or Town: _____ State: _____ Zip: _____
- ii. Latitude: _____ Longitude: _____
- Method of latitude/longitude determination
- _____ USGS map _____ Filed survey _____ Other
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
- d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____ dry metric tons.
- e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons.
- f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec? ☐ Yes ☐ No If yes, describe the liner or attach a description.
- _____
- _____
- g. Does the active sewage sludge unit have a leachate collection system? ☐ Yes ☐ No
- If yes, describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:
- _____
- _____
- _____
- h. If you answered no to either f or g, answer the following:
- Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ☐ Yes ☐ No If yes, provide the actual distance in meters: _____
- i. Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons
- Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)
- Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? ☐ Yes ☐ No

If yes, provide the following information for each such facility, attach additional sheets as necessary.

- a. Facility name: _____
- b. Facility contact: _____
- Title: _____
- Phone: () _____
- c. Mailing address.
- Street or P.O. Box: _____
- City or Town: _____ State: _____ Zip: _____
- d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:
- Permit Number: _____ Type of Permit: _____
- _____
- _____
- e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
- ☐ Class A ☐ Class B ☐ Neither or unknown
- f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge: _____
- _____
- _____

FACILITY NAME: VA-006 Rhapsody Purge

VPDES PERMIT NUMBER: VA0062514

- g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?
- ☐ Option 1 (Minimum 38 percent reduction in volatile solids)
 - ☐ Option 2 (Anaerobic process, with bench-scale demonstration)
 - ☐ Option 3 (Aerobic process, with bench-scale demonstration)
 - ☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
 - ☐ Option 5 (Aerobic processes plus raised temperature)
 - ☐ Option 6 (Raise pH to 12 and retain at 11.5)
 - ☐ Option 7 (75 percent solids with no unstabilized solids)
 - ☐ Option 8 (90 percent solids with unstabilized solids)
 - ☐ None or unknown
- h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge: _____
- i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above: _____

3. Vector Attraction Reduction.

- a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?
- ☐ Option 9 (Injection below land surface)
 - ☐ Option 10 (Incorporation into soil within 6 hours)
 - ☐ Option 11 (Covering active sewage sludge unit daily)
- b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge: _____

4. Ground Water Monitoring.

- a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ☐ Yes ☒ No
If yes, provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.
- b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
☐ Yes ☒ No If yes, submit a copy of the ground water monitoring program with this application.
- c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? ☐ Yes ☒ No
If yes, submit a copy of the certification with this application.

5. Site-Specific Limits.

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
☐ Yes ☒ No If yes, submit information to support the request for site-specific pollutant limits with this application.

NA